

TRANSPLANTING DIRECTIONS

— ISSUED BY —

Stone & Wellington, Nurserymen,
NURSERIES, FONTHILL, WELLAND COUNTY, ONTARIO

**Head Offices, Toronto, Ont. Branches, Montreal, P.Q.,
 Hartford, Conn., Madison, Wis.,
 and Victoria, B.C.**

READ!

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IN PRESENTING these instructions to our patrons, we would earnestly request that they give the most earnest attention to the details. They have been compiled with a view to make them as simple as possible, and having fulfilled our part of the contract, by delivering first-class stock in good condition, also giving all necessary instructions how to care for it, if any of our customers should lose a portion of their stock, the fault cannot be on our side. We allude to these, because years of experience have taught us that the public lose nursery stock because they neglect it; and we have taken the precaution to send a copy of our Transplanting Directions to every customer, so that none may claim that they do not know how to plant and care for their stock.

Anything that has to be cultivated in the earth can no more live without nourishment and care than can a human being!

We guarantee to deliver the stock in good condition, and could we plant and care for it for the first three months, would willingly insure the growth of every tree and shrub we send out. We seldom ever lose a plant, even when we import them from Europe, and grow them here during the summer for fall delivery, and the stock is out of the ground for many weeks.

PREPARATION OF THE SOIL.

For fruit trees the condition of the soil must be such as would be adapted to grow successfully farm crops. If the land on which you are to plant your trees is not in a condition to bear these exposures, you can make it so by thoroughly underdraining, deep ploughing and sub-soiling. You may enrich it in the usual manner, by turning under clover, applying barnyard manure, or where it can be obtained, vegetable mould or muck without stint. The last is well adapted for producing a large amount of fibrous roots and it is through these that the tree is fed.

PREPARING THE TREES FOR PLANTING.

The broken or mutilated portions of the roots must be cut off, so as to leave the ends smooth and sound, and the ends of all the other roots should be pruned. From these ends the new fibrous roots usually start.

PLANTING.

The hole must be large enough to receive the roots freely without cramping or bending them from their natural position; the larger the better. Let the tree be the same depth it stood in the nursery (the old mark can be readily discerned), and not deeper, except in cases of dwarf trees. These latter should be set so that the point of union should come two or three inches below the surface of the ground. The tree being held upright, the finest and best earth from the surface should be carefully worked among the roots with the fingers, filling every space and bringing every root in contact with it. **SET THE TREE AS FIRM AS A POST BUT LEAVE THE SURFACE FILLING LIGHT AND LOOSE.**

MULCHING.

This is done by placing a layer of coarse manure from three to six inches deep, extending one or two feet further in each direction than the roots. This protects the earth about the roots against drying or baking with wind and sun, retains to it the requisite moisture and obviates all occasion for a practice generally of injurious effect—the watering of newly-planted trees.

PRUNING.

The stem should now be put in condition for the formation of the top, by removing all the limbs to the point where it is desired to have the top; then cut back each remaining limb, leaving from four to six buds of last season's growth. In the absence of any limbs suitable to form a top, cut the tree down to the requisite height, leaving the dormant buds to make the top.

Don't allow the Roots to be exposed to sun and air.

The business of pruning vigorously at time of setting is generally an ungrateful one to the planter, as it injures for a time the appearance of the tree to an unpracticed eye. It should, however be unhesitatingly performed, all the branches to the extent of at least one-half the length of the previous year's growth being removed. Care should also be used to give the proper form to the tree. The head may be left high or low, as the taste of the planter may prefer, or as the nature of the tree in some cases may require.

No stock planted in the fall should be pruned till the hard frost has left in the spring, but before the sap starts.

STAKING.

If the trees are tall or in exposed situations, they should be supported by stakes to prevent injury from the action of the wind. Staking is done in the best manner by driving two strong stakes firmly into the ground, one on each side of the tree, about a foot distant from it, and fasten the trees between them with bands of straw, or other soft material, so that it may be kept in an upright position, without chafing, till the roots obtain a firm hold upon the soil.

PEACH TREES.

They should be planted immediately on their delivery, or if not prepared to do so, the roots should be buried in the ground—they will not stand exposure to sun and air, and many are lost simply for want of care. As soon as planted cut back all side branches to within two or three inches of the main stem. Make this the invariable practice, and never deviate from it if you wish to save your trees. The growth will be much more rapid and vigorous in consequence of this pruning, and by strictly adhering to it, or by immediate planting, or covering the roots in the soil, very few, if any trees will be lost. Peaches are all other stock we deliver, will be in fine condition, having been carefully handled and kept from exposure by us. If you do not follow our directions, and meet with loss, the fault will be entirely with you.

PERPETUAL CLEMATIS.

The top of these plants die down every winter, and therefore needs no protection. Plant in RICH soil, spreading the roots WELL apart, being very careful not to break them; dig a large hole so as to afford them plenty of room. They need plenty of food during summer to enable them to support and supply a continued abundance of bloom. These plants will not produce the best results the first season after transplanting.

Cultivation after Planting & Training.

Many cultivators, after taking great trouble and expense in the selecting and planting of their trees, fail of success by neglecting that after-care and attention which is equally essential. Caterpillars and

canker worms, grubs and borers, slugs and aphids, disease and blight, must be watched for, fought against, and remedies faithfully applied. The wants of the growing tree must be carefully foreseen, and a faithful effort made to insure health and productiveness.

The requirements of pruning vary somewhat according to the kind of tree; we prefer, however, low training for all trees, for dwarf trees very especially. The pruning should be done each year, so that no necessity may arise for cutting large limbs. Care must always be used to keep the head of the tree open and well-balanced cutting the limbs which may be superfluous.

Trees should be trimmed as early as possible up to the height it is intended the future head should be, that the cutting off of large limbs may not in future be necessary. This should be avoided when possible, as decay is liable to commence at point of separation, and extended into the trunk. When such removal is absolutely necessary, the wound should be carefully pared smooth, and a covering of paint or grafting wax applied to protect it from the action of the weather. Dwarf trees, particularly of the pear and apple, while young, require more pruning than any other kind of tree, in order to bring the top to a suitable form. For the first two or three years after planting, fully one-half the growth of the previous year should be removed, by heading in or reducing the length of each limb. The top limbs require to be cut back more, the lower limbs less, thus producing a more equal distribution of sap, and consequent vigor to the lower limbs with the upper. After the tree has passed, say to the third or fourth year after planting, the requirement of pruning is only to keep it in the symmetrical shape, and prevent particular limbs from taking a disproportionate growth. Limbs so inclined must be headed back sufficiently, and all superfluous wood upon the tree kept promptly removed. This regularly attended to, will obviate the occurrence of any necessity for amputating large limbs.

Those who are obliged to plant trees in fields of grass or grain, should see that all such are carefully mulched with coarse manure, and that the ground is kept loose and moist about the trees. A hoed crop is greatly preferable in such plantations for the first five years. After this time, standard apple, pear, cherry, and plum trees will grow and produce fairly in turf. The dwarf trees and peaches should be well mulched every year with coarse manure, and the ground thoroughly cultivated.

SUMMER PINCHING

Those who are impatient to see fruit upon their trees, as is often the case, particularly with regard to trees tardy in coming into bearing, may expedite the

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fulfilment of their wishes by employing the process of summer pinching. In the month of July pinch off the ends of the young shoots; this retards for the time the flow of sap, and hastens the formation of fruit buds.

ASPARAGUS.

To prepare a bed, dig the ground deep, incorporating large quantities of well decomposed manure. Plant the roots about three inches deep in rows 18 inches apart, and one foot apart in rows.

GRAPE VINES

Require a dry, mellow, well drained soil, deeply worked, and well enriched, with a warm sunny exposure. In planting give the roots plenty of room; spread them out not more than six inches under the surface and settle the soil firmly around them. Soapsuds, sink water and urine are good fertilizers. Nothing better than leaves and trimmings of vines buried around the roots.

PRUNING.—The novice, before attempting to prune a vine, should bear in mind the following facts and principles:

FIRST. That, as a general rule, the fruit-bearing canes of this year are grown from buds on last year's canes; in other words, the wood of this year contains the buds which produce the fruitful canes of next year.

SECOND. That the fruit buds differ from wood buds only because of better development.

THIRD. That a cluster is a fruitful tendril, and that the ordinary capacity of a fruitful bud is to develop, on an average, two or three of these fruitful tendrils, or as commonly expressed, clusters of fruit.

FOURTH. That the tendency of the sap is to the extremity of the vine; that the straighter the cane the more rapid the growth, and the strongest growth from a pruned cane will generally be found nearest the end.

FIFTH. That it is an easy matter to overtax a young vine by endeavoring to make it produce and ripen more fruit than it is capable of doing. A young vine cannot yield the crop that an older, matured vine can without injury, any more than a young boy or girl can do the work of an adult; and it is as unreasonable to expect it in one case as in the other.

Vines, when set, should be cut back to within three or four buds of the root. In November, or early in the spring, before the sap starts, in open culture, they should be pruned liberally. In pruning rather tender vines, leave more wood than is needed, as some may be killed, and finish pruning in spring as soon as the leaves are nearly developed, when the life of the vine may be seen. In summer allow a good growth beyond the fruit, and about midsummer pinch off the ends of the branches to check them and cut feeble

laterals and branches on which there is no fruit; then there will be much foliage to absorb matter and prepare nutriment, and by checking the growth of wood, it will be appropriated to perfect the fruit. Do not pick off the foliage. The leaves, not the fruit should be exposed to the sun. We urge this point, as thousands mistake, and grapes are generally mismanaged. The two great errors are in neglecting to cut off useless wood in the fall or spring, and in depriving the plant of necessary foliage by close pruning in summer. To obviate over-bearing, reduce the vines by close pruning so as to prevent much fruit from setting. If too much sets, thin it in season, that the juices of the vines may not be wasted on what must be removed.



The above represents a grape vine pruned and grown in the manner that will give the best results.

BERRIES

Should have a strong soil and be kept under constant cultivation. Mulching is of special value. Raspberries and Blackberries should have the old wood cut out each year, and new canes pinched off when 3 feet high. Strawberries should be mulched late in the fall, uncover crowns early in the spring, remove mulch after fruiting, and spade in light dressing of manure. If set for fruit, keep the runners off.

CURRANTS AND GOOSEBERRIES

Need heavy mulching and pruning, so that new wood will have room to grow.

ROSES

Should be planted in a deep, rich, well-drained soil, so that the top roots are not less than two inches below the surface and should be severely pruned every spring before the buds start, cutting back the last growth to three or four buds, except Climbing Roses, which may first be allowed to partly cover the space desired. Old decayed branches should never remain. Every autumn compost should be placed around the stem of the plants, and spaded into the ground the following spring.

After planting, the earth should be dug up around them so as to form a small channel all around the bush; pour into this some liquid manure mixing the earth that has to be replaced in with it. A small quantity of liquid manure given to the bushes in the manner described twice a month, will encourage growth and blossom

STONE AND WELLINGTON'S DIRECTIONS FOR TRANSPLANTING.

Remedies for Insect Enemies of the Rose.

ROSE SLUG.—White Hellebore powder, mixed in water and sprinkled on the bushes, one ounce to the gallon of water. This remedy also destroys the currant worm.

ROSE BUG.—Hand picking is the only effectual remedy.

APHIS, OR GREEN FLY.—Sprinkle bushes with Tobacco water.

MILDEW.—Apply sulphur or soot in the form of a dry powder, having first wetted the bushes so that it will adhere to them.

For planting grapes, berries, currants and gooseberries, use directions given for trees.

DISTANCES FOR PLANTING.

Standard Apples.....	30 ft. apart each way
Standard Pears and Cherries.....	20 " " "
Duke and Morello Cherries.....	18 " " "
Plums, Apricots, Peaches.....	16 to 18 " "
Dwarf Pears.....	10 to 12 " "
Dwarf Apples.....	10 to 12 " "
Grapes.....	rows 10 to 16 ft. apart 7 to 16 ft. in rows.
Currants and Gooseberries.....	3 to 4 ft. apart.
Raspberries and Blackberries.....	3 to 4 by 5 to 7 apart.
Strawberries, for field culture.....	1 to 1½ by 3 to 3½ "
Strawberries, for garden culture.....	1 to 2 ft. apart.

NUMBER OF TREES ON AN ACRE.

30 ft. apart each way..	50	10 ft. apart each way..	435
25 " " " " " " " "	70	8 " " " " " " " "	680
20 " " " " " " " "	110	6 " " " " " " " "	1210
18 " " " " " " " "	135	5 " " " " " " " "	1745
15 " " " " " " " "	205	4 " " " " " " " "	2725
12 " " " " " " " "	300	3 " " " " " " " "	4840

RULE.—Multiply the distance in feet between the rows by the distance the plants are apart in the rows and the product will be the number of square feet for each plant or hill; which, divided into the number of feet in an acre (43,560), will give the number of plants or trees to the acre.

Plans for Orchards or Fruit Gardens.

An excellent plan for laying out orchards is to place the trees 35 or 40 feet apart each way, then in the apple rows, half way between, plant a standard pear. Then cross-ways, half way between the apple, plant a peach or dwarf growing tree. Opposite the pear trees, either a cherry, quince, plum, pear, or peach tree may be planted. The trees will then be either 17½ or 20 feet apart. If small fruits are also to be grown then a row of raspberries or blackberries can be planted in each tree row, and three or four rows of strawberries in each space. If preferred, one space might be given up to raspberries, another to blackberries another to strawberries, and another to currants and gooseberries; or the last two fruits, being longer lived, might be placed in the apple rows. By the time that the apple will require most of the ground, the peach trees and dwarf trees, and also the small fruit, will be through bearing, while the pear and cherry trees, being of upright growth, will seldom interfere.

Another plan is to have a row planted with peaches, pears or plums, or dwarf trees, half way between each apple row, and small fruits or vegetables in the spaces

between. In this way double crops may be obtained, giving an annual income of from \$200 to \$600 until the apple trees come into bearing; while the peaches, raspberries and blackberries will be benefited by the protection afforded by the apple trees. In places exposed to severe winds, it is sometimes advisable to plant a row of rapid-growing evergreens (pine or spruce, &c.), on the north and west sides having the trees from 5 to 15 feet apart.

In small gardens in the suburbs of towns or cities, quite a number of trees may be planted by setting out a row a few feet from the fence having the row run all around the plot. By planting from 8 to 12 feet apart they will do well, and can afterwards be thinned out if necessary. When in small gardens, a vacant space is wanted for vegetables, then only dwarf-growing trees, or peaches, plums, pears, &c., should be planted on the south side. Berry bushes may be set out next to the fences, and in the tree rows.

Destroying the Bark Louse.—This is a small, scale-like, whitish, oval shaped insect about an eighth of an inch long, that is sometimes found on young fruit trees. A wash made by boiling tobacco stems in water, and mixing with soft soap, will easily destroy them. A solution of soft soap, or potash, or wood ashes is also effective.

Destroying the Woolly Aphis.—This is a minute, white, downy insect, that forms in the branches, appearing like mildew. It is sometimes called the "American blight," but is much more easily controlled than the regular blight. A wash of whale-oil soap speedily destroys it. Fresh white wash, made of unslacked lime and one-fourth sulphur, is another remedy. Sometimes half an ounce of carbolic acid is added. These washes are also good for destroying other forms of insect life. A wash made with half an ounce of common sulphuric acid and one third of a pint of water, applied with a brush or swab, is also effective, as are also many other lime or potash or potash or sulphur solutions.

Resuscitating Trees and Plants.—If trees or plants have become very dry or shrivelled from long exposure or delays, then either bury them entirely in damp soil for two or three days, or place them in water for from 12 to 24 hours. If received in a frozen state, no injury will be experienced if placed unopened in a cellar, or elsewhere where they will be exposed to neither cold nor heat, but allowed to thaw out gradually.

STONE & WELLINGTON, Nurserymen, TORONTO.
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P.S.—SALESMEN WANTED. To good reliable and successful salesmen, we can give good salaries and commission, and permanent employment.